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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/889,570	07/30/2001	Shingo Takeda	010973	4535

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EXAMINER

RAJGURU, UMAKANT K

ART UNIT

PAPER NUMBER

1711

DATE MAILED: 08/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/889,570

Applicant(s)

TAKEDA ET AL.

Examiner

Umakant K. Rajguru

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) 9-17 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 9.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-8, drawn to a urethane composition, classified in class 524, subclass 379.
 - II. Claims 9-17, drawn to a method, classified in class 156, subclass various.

The inventions are distinct, each from the other because:

The inventions listed as Groups I and II do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: Specifically with regard to Group II, claims 9-17, it is well known in the art to impregnate or coat fibrous structures with urethane compositions to form composite which are suitable for a wide variety of applications.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

2. During a telephone conversation with Attorney Steve Adrian on January 5, 2003 a provisional election was made with traverse to prosecute the invention of I, claims 1-8. Affirmation of this election must be made by applicant in replying to this Office action. Claims 9-17 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the

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currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

3. A preliminary amendment (Paper No. 7) and IDS (Paper No. 8) have been filed on July 30, 2002. Another IDS (Paper No. 9) has been filed on November 6, 2002.

4. Claims 1-8 are being examined.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

6. Claims 1 and 8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 is indefinite in reciting "associated type thickener" because the term fails to specifically point out what is encompassed by the scope of this claim.

Claim 8 is indefinite since it is not known what is meant by "terminal polyoxyalkylene glycol" (line 6).

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any

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evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 1-3 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vogt et al (USP 6,040,493) in view of Asano et al (USP 5,151,240).

Vogt describes compositions comprising (i) a water-borne polyurethane latex, (ii) a thickener and few other ingredients (abstract); column 2, lines 42-60). Coagulation occurs at a temperature more than 82⁰C (column 3, lines 4-7).

Vogt does not mention the (claimed) range of 40⁰-90⁰C of coagulation temperature.

Asano describes leather-like material obtained by a process wherein a belt is coated with a polyurethane elastomer. In column 6, lines 61-64, the patentee suggest using a temperature in a range of 60⁰-90⁰C for coagulation.

Therefore it would have been obvious from teaching Asano to use in the composition of Vogt, the polyurethane latex having a coagulation temperature range of from 60⁰-90⁰C in order to produce a very uniformly coated layer.

Prior art is silent about softening temp (of instant claim 2) and average particle diameter (of instant claim 3). It is the examiner's position that it would be obvious to one of ordinary skill in the art to choose polyurethane with these characteristics in order to produce coatings having expected mechanical and chemical properties.

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9. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vogt et al (US 6,040,393) as applied to claim 1 above, and further in view of Stoy (USP 5,741,828) or Wicks et al (USP 5,733,967).

Disclosure of Vogt is presented earlier. Vogt does not mention emulsifier (of instant claims 4 and 5).

Stoy discloses a coating composition comprising an aqueous emulsion or dispersion of a hydrophobic elastomer stabilized with suitable emulsifiers. Polyurethane is one of the elastomers. Suitable emulsifiers are nonionic emulsifiers (column 2, lines 34-49).

Wicks discloses aqueous urethane dispersions comprising emulsifiers. Claimed nonionic emulsifiers are mentioned in column 9, lines 29-31.

Therefore it would have been obvious to use in the composition of Vogt, the nonionic emulsifiers of Stoy or Wicks in order to obtain enhanced dispersion.

10. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vogt et al (USP 6,040,393) as applied to claim 1 above, and further in view of Schipper et al.(USP 6,579,932)

Disclosure of Vogt is presented earlier. Vogt does not mention the (claimed) thickener (of instant claims 6 and 7).

Schipper discloses aqueous coating compositions comprising a mixture of polyurethane dispersions and Optiflo L100 and L 120 as thickeners (column 11, lines 15-16).


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Therefore it would have been obvious to add to the composition of Vogt, the thickener of Schipper for adjustment of the viscosity to the desired level and thereby to enhance application of the dispersion as a coating.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to U.K. Rajguru whose telephone number is 703-308-3224. The examiner can normally be reached on Monday-Friday 9:30 am-6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James J. Seidleck can be reached on 703-308-2462. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.


U.K. Rajguru/dh
August 15, 2003


James J. Seidleck
Supervisory Patent Examiner
Technology Center 1700